

MILITARY SPECIFICATION SHEET

SYNCHRO, CONTROL DIFFERENTIAL TRANSMITTER, TYPE 26V-08CDX4C

This amendment forms a part of Military Specification Sheet MIL-S-20708/80D dated 19 December 1968, and is approved for use by all Departments and Agencies of the Department of Defense.

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Table II and notes above and below Table II - Delete entirely and substitute the following

"TABLE II. Military Part Number Variant Characteristics

MILITARY PART NO. <u>1/</u>	SHAFT DIAMETER NOMINAL	SHAFT STYLE	TERMINATION	L' DIMENSION TO STOP ON SHAFT	L DIMENSION FREE SHAFT LENGTH
M20708/80-01C	.090	Plain & Slotted	Wire Leads	.375 ± .010	.312 ± .010
M20708/80-02C	↓	↓	↓	.550 ↓	.500 ↓

1/ Military part number M20708/80-01C shall be the NATO Standard.

1/ The suffix letter following the numerical dash number corresponds to the latest modification letter in the type designation."

MIL-S-20708/80D
AMENDMENT 1

Add a new Table III and note as follows:

"TABLE III. Military Part Number Cross-References

SUPERSEDED MILITARY PART NUMBERS		NEW MILITARY PART NUMBERS
MIL-S-20708/80D	MIL-S-20708/80C	
M20708/80D-001 M20708/80D-002	M20708/80-001	M20708/80-01C M20708/80-02C

NOTE: All line items shown in Table III refer to equivalent and interchangeable synchros of the same type designation modification. Part number changes do not affect form, fit, or function of the synchros listed therein."

Custodians:

Army - AR
Navy - AS
Air Force - 85

Preparing activity:

Navy - AS
Project No. 5990-0313-42

Review activities:

Army - ME
Navy - OS, SH, EC
Air Force - 11, 17, 19, 99
DSA - ES

User activities:

Army -
Navy - MC, CG
Air Force -

MIL-S-20708/80E
30 July 1987

SUPERSEDING
MIL-S-20708/80D
19 December 1968

MILITARY SPECIFICATION SHEET
SYNCHRO, CONTROL DIFFERENTIAL TRANSMITTER, TYPE 26V-08CDX4C

This specification is approved for use by all Departments and Agencies of the Department of Defense. The requirements for acquiring the Synchros described herein shall consist of this specification and the latest issue of MIL-S-20708.

TABLE I. Requirements.

Requirement	Value	Unit	Tolerance
Frequency	400	Hz	±1%
Primary Voltage	11.8	volts	±1%
Primary Current	108	milliamps	maximum
Primary Power	0.29	watts	maximum
Impedance:			
Z _{so}	95.0-120.0	ohms	min.-max.
Z _{rs}	35.0-48.0	ohms	min.-max.
Impedance Angle:			
Z _{so}	74.0-79.0	degrees	min.-max.
Z _{rs}	15.0-20.0	degrees	min.-max.
Transformation Ratio	1.154	-----	±2%
Phase Shift (Lead)	9.5	degrees	±1.5
Electrical Error	7.0	minutes	maximum
Null Voltage:			
Total	30	millivolts	maximum
Fundamental	20	millivolts	maximum
Friction Torque	0.04	ounce-inches	maximum
Radial Play	0.0004	inches	maximum
End Play	0.0007	inches	maximum
Temperature Rise	20	degrees (C)	maximum

TABLE II. Military part number variant characteristics.

Military Part No. 1/	A ±.010	B ±.010	G Maximum	Shaft Style	Terminal End	U +.0000
M20708/80-01C	.375	.312	1.240	Plain & Slotted	Wire Leads	.090
M20708/80-02C	.550	.500	1.240	Plain & Slotted	Wire Leads	.090

1/Military part number M20708/80-01C shall be the NATO standard.

1/The suffix letter following the numerical dash number corresponds to the latest modification letter in the type designation.

TABLE III. Military part number cross-references.

SUPERSEDED MILITARY PART NUMBERS		NEW MILITARY PART NUMBERS
MIL-S-20708/80D	MIL-S-20708/80C	
M20708/80D-001 M20708/80D-002	M20708/80-001	M20708/80-01C M20708/80-02C

NOTE: All line items shown in Table III refer to equivalent and interchangeable synchros of the same type designation modification. Part number changes do not affect form, fit, or function of the synchros listed therein.

Custodians:

Army-AR
Navy-AS
Air Force-85

Preparing Activity:

Navy-AS

(Project 5990-0334-63)

Review Activities:

Army-MI,AV
Navy-OS
Air Force-11,17,99
DLA-ES

User Activities:

Navy-MC,CG

TABLE I

Requirement	Value	Unit	Tolerance
Frequency	400	Hz	+1%
Primary Voltage	11.8	volts	nominal
Primary Current	108.0	milliamps	maximum
Primary Power	0.24	watts	nominal
Impedance:			
Z _{so}	95.0-120.0	ohms	min.-max.
Z _{rs}	35.0-48.0	ohms	min.-max.
Impedance Angle:			
Z _{so}	74.0-79.0	degrees	min.-max.
Z _{rs}	15.0-20.0	degrees	min.-max.
Transformation Ratio	1.154	-----	+2%
Phase Shift	9.5(lead)	degrees	±1.5
Electrical Error	7.0	minutes	maximum
Null Voltage:			
Total	30.0	millivolts	maximum
Fundamental	20.0	millivolts	maximum
Friction Torque	0.04	ounce-inches	maximum
Radial Play	0.0004	inches	maximum
End Play	0.0007	inches	maximum
Temperature Rise	20.0	degrees(C)	maximum

Part number: M20708/80D plus applicable dash number from Table II.

TABLE II

DASH NO.	SHAFT DIAMETER	SHAFT STYLE	TERMINAL END	L' DIMENSION TO STOP ON SHAFT	L REFERENCE FREE SHAFT LENGTH
*-001	.090	Plain & Slotted	18" Wire Leads	.375 ± .010	.312 ± .010
002	.090	↓	↓	.550 ↓	.500 ↓

*Dash number -001 shall be the NATO Standard, any subsequent dash number illustrated on Table II shall be permitted.

Custodians:
 Army-MU
 Navy-AS
 Air Force-85

Review Activities:
 Army-EL,MI,MO,AV,MU
 Navy-SH,OS,AS
 Air Force-11,17,85
 DSA-ES

User Activities:
 Navy-SH,OS,AS,MC,CG

Preparing Activity:
 Navy-AS
 Project No. 5990-0190

SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity (as indicated on reverse hereof).

SPECIFICATION
MIL-S-20708/80D

ORGANIZATION (of submitter)

CITY AND STATE

CONTRACT NO.

QUANTITY OF ITEMS PROCURED

DOLLAR AMOUNT

MATERIAL PROCURED UNDER A

DIRECT GOVERNMENT CONTRACT

SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?
A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

YES NO IF "YES", IN WHAT WAY?

4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)

SUBMITTED BY (Printed or typed name and activity)

DATE

FOLD

DEPARTMENT OF THE NAVY
Naval Air Engineering Center
Philadelphia, Pennsylvania 19112

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